

Notice of Allowability

Application No.

10/035,137

Examiner

John S. Chu

Applicant(s)

KURIHARA ET AL.

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/12/04.
2. ☒ The allowed claim(s) is/are 1 and 3-5.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of _____
- Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

John S. Chu
Primary Examiner
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REASONS FOR ALLOWANCE

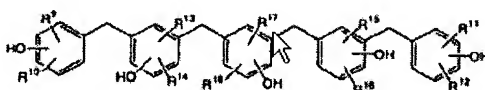
1. The following is an examiner's statement of reasons for allowance: The claimed invention is drawn to the following:

Claim 1 (currently amended): A positive photoresist composition comprising:

(A) an alkali-soluble resin;

(B) a photosensitizer comprising a quinonediazide ester between a naphthoquinonediazidosulfonic acid compound and a compound represented by following Formula

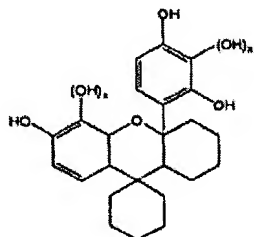
(II):



(II)

wherein R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} and R^{18} are each independently a hydrogen atom, an alkyl group having from 1 to 3 carbon atoms or a cyclohexyl group; and

(C) a sensitizer comprising at least one of compounds represented by following Formula (III):

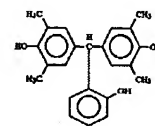


(III)

wherein x is 0 or 1.

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Applicants have submitted a declaration under 37 C.F.R. 1.132. The declaration compares a composition even closer than the closest prior art reference to UETANI et al '779 used in the rejection. The comparative examples 1-3 of the declaration use the photosensitizer in



the claimed application with the additive disclosed in UETANI et al '799 (). The declaration demonstrated “excellent” shrinkage (lengths of the resulting traces were equal to or more than 0.9 um and less than or equal to 1.0 um, indicating no shrinkage) of the patterned image comprising the claimed ingredients, while the prior art compositions to comparative examples 1-3 demonstrated an evaluation of “fair” defined on page 6 of the declaration (lengths of traces were equal to or more than 0.7 um and less than 0.8 um). The evidence indicates that the claimed composition gives improved shrinkage as stated by applicant in the Remarksk, page 4.

Based on the claimed invention demonstrating unexpected results over the prior art compositions, claims 1, and 3-5 are seen as allowable and passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

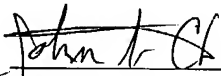
The fax phone number for the USPTO is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1700.



John S. Chu
Primary Examiner, Group 1700

J.Chu
May 12, 2004